

```
zcat /var/log/apt/history.log.*.gz | cat - /var/log/apt/history.log | grep -Po  
'^Commandline: apt-get install (?!.+--reinstall)\K.*' # list installed packages\  
by a user
```

```
pip freeze | awk -F "==" '{ print $1 }' # list pip packages without versions
```

```
sudo apt-get install python3-dev default-libmysqlclient-dev build-essential\  
OR downgrade to version 2.0.0
```

```
gdb python3 -ex "run ~/c_quant/python_ext.py"
```

```
python -m pdb script  
python -m venv env
```

```
gcc -fpic -c carr_madan_ft.c cuirai_heston_characfun.c  
heston_trap_integration.c integration_carrmadan_ft.c struct_init.c -I  
~/c_quant/include
```

```
gcc -o libheston.so.1.2.3 carr_madan_ft.o cuirai_heston_characfun.o  
heston_trap_integration.o integration_carrmadan_ft.o struct_init.o -shared -  
Wl,-soname,libheston.so.1 -I ~/c_quant/include
```

```
gcc ~/c_quant/testing_main.c -o practice -I ~/c_quant/include -lm -lheston -  
L~/c_quant/lib,/usr/include
```